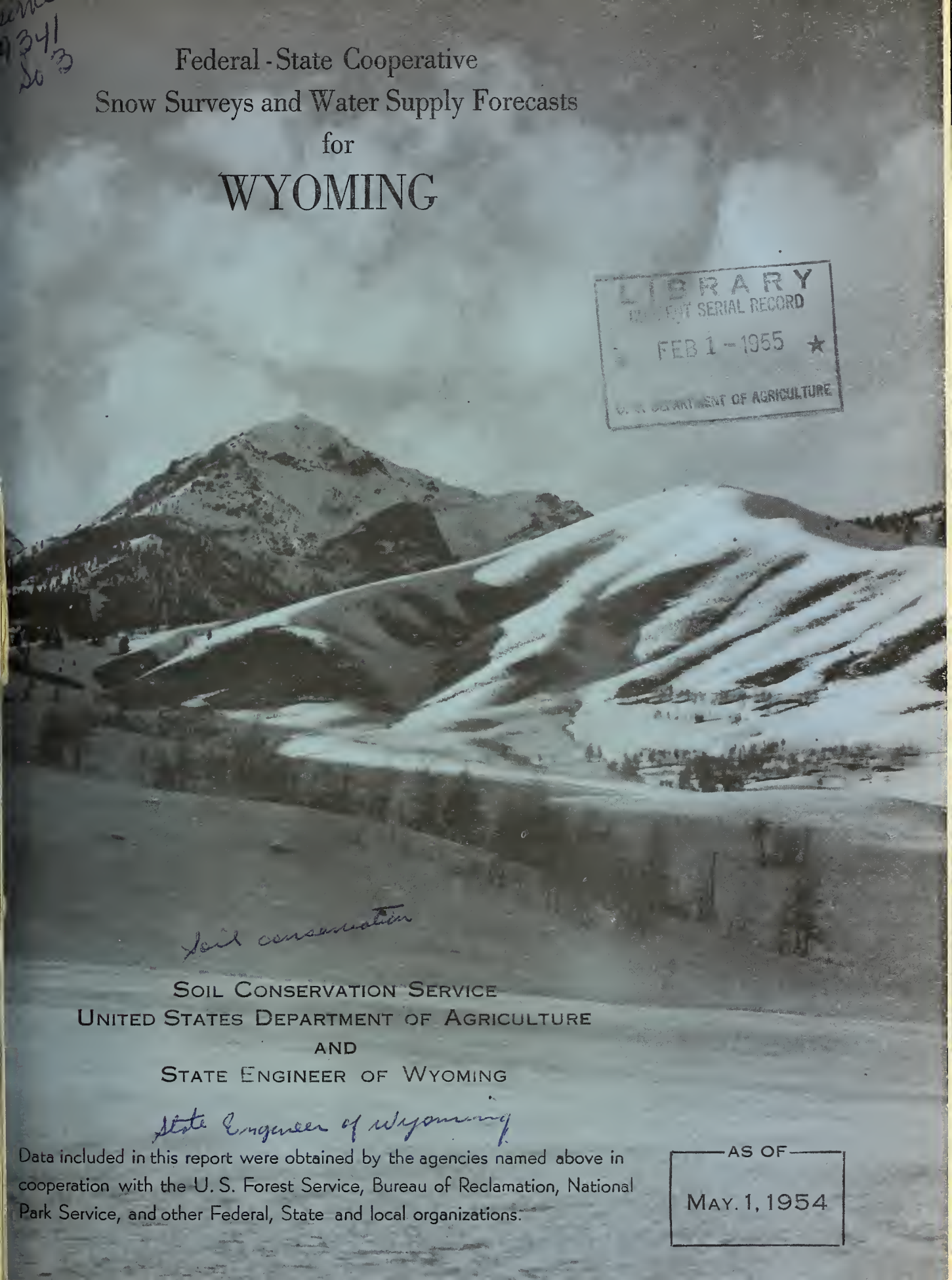
Federal - State Cooperative Snow Surveys and Water Supply Forecasts for WYOMING



Soil conservation

SOIL CONSERVATION SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE
AND
STATE ENGINEER OF WYOMING

State Engineer of Wyoming

Data included in this report were obtained by the agencies named above in cooperation with the U. S. Forest Service, Bureau of Reclamation, National Park Service, and other Federal, State and local organizations.

AS OF
MAY. 1, 1954

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

TO RECIPIENTS OF COOPERATIVE SNOW SURVEY
AND WATER SUPPLY FORECAST REPORTS.

Forecasts by U. S. Weather Bureau of total annual streamflow October-September, inclusive, at more than 300 gaging stations are issued monthly January through May in the publication WATER SUPPLY FORECASTS FOR THE WESTERN UNITED STATES.

Weather Bureau forecasts of runoff presented in that bulletin are computed from procedures based on mathematical analysis of the relation between precipitation and runoff.

The Weather Bureau bulletins may be secured by writing to:

Hydrblogist in Charge
River Forecast Center
U. S. Weather Bureau
712 Federal Office Building
Kansas City 6, Missouri

For current information on local river and flood conditions, reference should be made to the appropriate River District Office, listed below:

Meteorologist in Charge.....Green River and
Weather Bureau Airport Station tributaries
Box 517
Grand Junction, Colo.

Meteorologist in Charge.....Snake River and
Weather Bureau Airport Station tributaries
Box 1718
Boise, Idaho

Meteorologist in Charge.....Yellowstone River
Weather Bureau Airport Station and tributaries
Box 1338
Billings, Montana

Climatologist.....North Platte River
Weather Bureau Office and tributaries
Box 1079
Denver, 1, Colo.

State of Wyoming

FEDERAL-STATE COOPERATIVE

SNOW SURVEYS AND WATER FORECASTS

FOR

WYOMING

Issued

May 9, 1954

Report Prepared
by
George W. Peak
Snow Survey Leader

Soil Conservation Service
and
State of Wyoming

345 East 2nd Street
P. O. Box 699
Casper, Wyoming

Issued by

B. H. Hopkins
State Conservationist
Soil Conservation Service

L. C. Bishop
State Engineer of Wyoming
Cheyenne, Wyoming

PRELIMINARY INVESTIGATIVE

SNOW WATER EQUIVALENT FORECASTS

for

WYOMING

Issued

May 9, 1954

Report Prepared
by
George W. Peck
Snow Survey Leader

Soil Conservation Service
and
State of Wyoming

318 East 2nd Street
P. O. Box 699
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PRELIMINARY WATER SUPPLY OUTLOOK FOR WYOMING

May 1, 1954

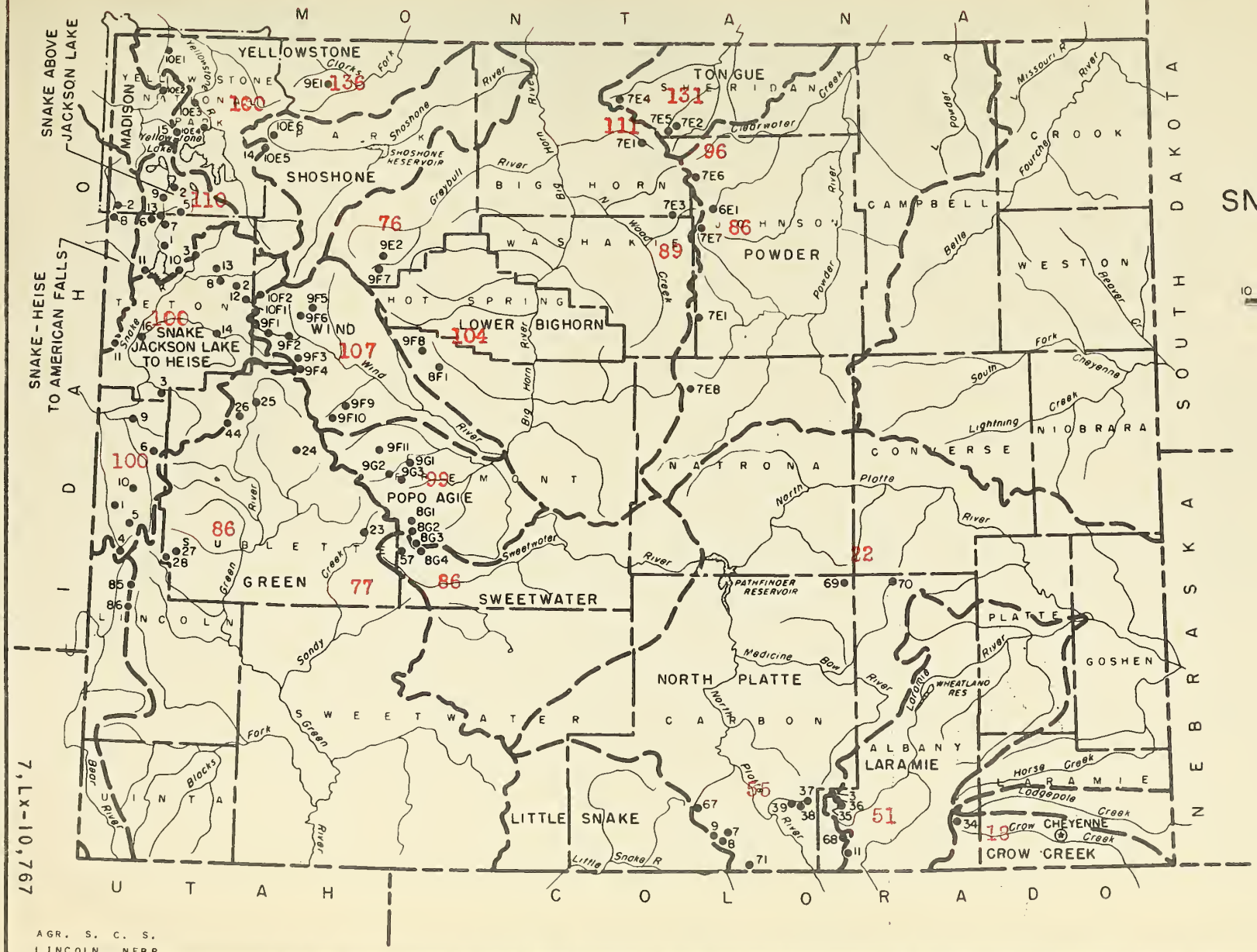
The snow cover throughout the state has receded considerably during the past month because of below-normal precipitation, accompanied by abnormally high temperatures.

Snow melt during the month has, in most areas, recharged the soil to its maximum capacity, so that all additional melt will be runoff. On this date one year ago the soil was still extremely dry and absorbed an appreciable amount of the May 1 snow pack.

Valley precipitation during the winter has been considerably below normal and in sharp contrast to the high elevation snow cover. The snow line is therefore at higher elevations than normal with a resultant decrease in the area of the snow pack.

In general, the forecasts of the seasonal (April - September) flow in Wyoming have been reduced 5 to 15 per cent.

A GEOGRAPHIC ANALYSIS OF THE WYOMING WATERSHED FOR MAY 1, 1954.
1954 is given as a percentage of the average water content for the past record.



COMPARISON OF SNOW COVER WITH THAT OF PREVIOUS YEARS
Summary of Snow Survey Data by Watersheds as of May 1, 1954

BASIN	NO. OF COURSES AVERAGED	YEARS OF RECORD	1954 SNOW WATER EXPRESSE AS PERCENTAGE OF 1953	1952	Avera
Snake River Basin in Wyoming	5	3-8	112	95	100
Upper Yellowstone in Yellowstone Park --	3	5-9	109	205	100
Madison River in Yellowstone Park	1	20	50	43	76
Lower Yellowstone - Clark Fork	1	16	104	171	136
Lower Yellowstone - Wind River	14	5-18	113	111	107
Lower Yellowstone - Popo Agie River	6	5-17	142	68	99
Lower Yellowstone - Owl Creek	2	5	66	129	104
Lower Yellowstone - Greybull River	2	3-13	91	291	76
Lower Yellowstone - Tongue River	3	4-17	97	217	131
Lower Yellowstone - Shell Creek	2	5-17	80	145	111
Lower Yellowstone - Nowood Creek	3	4-18	75	107	89
Lower Yellowstone - Clear Creek on the Powder River --	2	3-17	87	169	96
Lower Yellowstone - Crazy Woman Creek on the Powder River --	3	2-17	78	106	86
North Platte Above Seminoe Reservoir --	14	4-18	68	39	55
North Platte - Sweetwater River	3	4-17	165	65	86
Laramie River Basin	9	4-18	63	40	51
Pole Mountain	1	17	--	--	18
North Laramie Mountains	1	4	17	19	22
Upper Colorado - Green River	8	2-18	89	77	86

Comparison of TV Coverage Estimates
Summary of Zone Survey Results, Areas of [illegible]

Area	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

WYOMING DRAINAGE BASINS STREAMFLOW FORECASTS

May 1, 1954

BASIN AND TRIBUTARY	Seasonal Stream Flow in Thousands of Acre Feet				
	FORECAST		Measured Runoff April - September		1942 to 1951 Average
	April September	% of Average	1952	1951	
UPPER YELLOWSTONE IN YELLOWSTONE PARK					
MADISON RIVER					
West Yellowstone (near)	200	96%	248	234	208
YELLOWSTONE RIVER					
Corwin Springs (at)	1940	104%	2171	2254	1957
CLARK FORK RIVER					
Chance (at)	540	87%	576	731	617
SNAKE RIVER BASIN					
SNAKE RIVER					
Moran (below)	970	111%	980	834	874
Heise, Idaho (near)	4220	104%	--	4960	4062
LOWER YELLOWSTONE BASIN					
WIND RIVER					
Riverton (at)*	550	100%	354	676	556
BIGHORN RIVER					
Thermopolis (at)	940	90%	374	1207	1046
Kane (at)	1340	90%	767	1514	1490
St. Xavier (near)	2110	93%	1286	2365	2269
BULL LAKE CREEK					
Bull Lake (above)	192	95%	214	215	202
Lenor (near)	145	100%	176	135	145
POPO AGIE RIVER					
Riverton (near)	402	105%	450	377	383
NORTH FORK POPO AGIE					
Lander (near)	78	102%	92	87	77
LITTLE POPO AGIE					
Hudson (at)	63	110%	81	61	57
GREYBULL RIVER					
Meeteetse (at)	218	92%	278	248	237
Basin (near)	104	92%	173	110	113
SHOSHONE RIVER					
Buffalo Bill Dam (below)	854	106%	697	984	806
Byron (at)	677	108%	486	834	627
TONGUE RIVER					
Dayton (near)	105	90%	104	108	117
Acme (near)	247	90%	239	206	274
Decker, Montana (near)	253	90%	249	--	281

*Subject to diversion above station.

[illegible] Yellowstone National Park

[illegible] 1, 1963

[illegible]	Average Flow in Thousands of Acre Feet			
	Monthly		Measured Runoff	
	April	May	June	July
	Average	1962	1963	Average
[illegible] YELLOWSTONE IN YELLOWSTONE PARK				
[illegible] RIVER				
Lake Yellowstone (outlet)	[illegible]	[illegible]	248	238	[illegible]
YELLOWSTONE RIVER					
Corwin Springs (1-)	[illegible]	1,[illegible]	2,172	224	[illegible]
GARDIN RIVER NEAR					
Gardiner (1-)	[illegible]	[illegible]	174	72	[illegible]
SNAKE RIVER BASIN					
SNAKE RIVER					
Moran (Outlet)	270	[illegible]	920	238	[illegible]
Heise, Idaho (inflow)	1,020	[illegible]	--	1,040	[illegible]
LOWER YELLOWSTONE BASIN					
[illegible] RIVER					
Livingston (1-)*	520	1,0[illegible]	38	615	[illegible]
STILLWATER RIVER					
Nemenolite (1-)	240	[illegible]	374	1,077	[illegible]
Absaroka (1-)	1,320	2[illegible]	767	1,[illegible]	[illegible]
Mt. Rocky (inflow)	2,120	9[illegible]	1,[illegible]	2,[illegible]	[illegible]
TOTAL INFLOW [illegible]					
Total Inflow (above)	1,[illegible]	[illegible]	2[illegible]	218	[illegible]
[illegible] (inflow)	[illegible]	1,[illegible]	1,[illegible]	1,[illegible]	[illegible]
[illegible]					
Livingston (inflow)	1,[illegible]	1,[illegible]	1,[illegible]	377	[illegible]
[illegible]					
Inflow (inflow)	7[illegible]	1,[illegible]	90	67	77
[illegible]					
[illegible] (1-)	65	1,[illegible]	82	6[illegible]	[illegible]
[illegible]					
[illegible] (1-)	[illegible]	[illegible]	278	216	[illegible]
[illegible]	[illegible]	[illegible]	1,[illegible]	1,[illegible]	[illegible]
[illegible]					
[illegible]	[illegible]	1,[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]					
[illegible]	[illegible]	[illegible]	1,[illegible]	1,[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] (inflow)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

WYOMING DRAINAGE BASINS STREAMFLOW FORECASTS (Continued)

May 1, 1954

BASIN AND TRIBUTARY	Seasonal Stream Flow in Thousands of Acre Feet				
	FORECAST		Measured Runoff		1942 to
	April	% of	April - September		1951
	September	Average	1952	1951	Average
POWDER RIVER					
Arvada (at)	145	102%	125	59	142
Moorhead, Montana (at)	240	85%	235	--	283
Locate, Montana (at)	275	78%	303	--	353
MIDDLE FORK POWDER					
Kaycee (near)	65	91%	36	30	72
NORTH FORK POWDER					
Mayoworth (near)	17	91%	17	12	19
CLEAR CREEK					
Buffalo (near)	40	103%	35	26	39
Arvada (near)	130	103%	100	53	126
NORTH PLATTE BASIN					
SWEETWATER RIVER					
Alcova (at)	91	110%	--	74	83
NORTH PLATTE RIVER					
Saratoga (at)	425	63%	1053	710	673
MEDICINE BOW					
Hanna (near)	70	61%	--	91	115
LARAMIE					
Jelm (at)	70	71%	124	131	99
Lookout (at)	62	68%	--	117	91
UPPER COLORADO BASIN					
GREEN RIVER					
Linwood (at)	1010	70%	--	1879	1440

* * * *

STATUS OF RESERVOIR STORAGE

Wyoming, South Dakota & Nebraska

May 1, 1954

BASIN and STREAM	RESERVOIR	USABLE CAPACITY 1000s AF	ACTIVE STORAGE - 1000s ACRE FEET 1954	1953	1952	10-Yr. Avg. 1942-51**
Snake River	Jackson	847	449.6	485.1	406.3	526.1
North Platte	Lake Alice & Minatare	68.0	37.4	60.0	55.4	53.8
North Platte	Seminoe*	1012.0	265.9	557.3	625.3	394.6
North Platte	Pathfinder*	1015.9	918.0	889.5	1012.4	537.6
North Platte	Alcova*	190.5	186.8	180.0	185.2	142.2
North Platte	Guernsey	39.8	38.8	17.5	49.7	29.8
Kansas Basin	Box Butte	31.6	20.5	24.3	30.8	27.5
Kansas Basin	Bonny	39.9	39.2	30.6	29.6	---
Kansas Basin	Swanson Lake	116.1	25.1	---	---	---
Kansas Basin	Enders	36.0	34.4	26.1	28.3	---
Kansas Basin	Harry Strunk	33.9	30.2	32.6	32.0	---
Kansas Basin	Harlan County	252.9	64.9	---	---	---
Kansas Basin	Cedar Bluff	176.8	100.3	113.8	143.3	---
Laramie River	Wheatland	95.0	12.2	32.5	58.0	41.1
Belle Fourche	Belle Fourche	185.2	136.4	76.6	143.4	147.4
Shoshone River	Buffalo Bill	439.8	156.4	164.7	233.7	291.0
Wind River	Boysen	758.0	360.3	455.4	233.4	---
Wind River	Pilot Butte	31.6	25.3	29.4	19.1	20.8
Wind River	Bull Lake	152.0	62.3	51.0	33.9	54.9
Cheyenne River	Angostura	92.0	34.3	46.2	33.6	---
Cheyenne River	Deerfield	15.1	15.1	14.7	15.1	14.0
Cheyenne River	Keyhole	190.3	8.4	11.8	0.5	---
Grand River	Shadehill	84.0	83.3	83.4	118.8	---

*Total Capacity and Total Storage
**Some for Less

[illegible]

[illegible]

[illegible] 1958

[illegible] and Stream	[illegible] Reservoir	[illegible] Capacity [illegible]	[illegible] 1000s [illegible] 1954	1955	1956	1957-58 [illegible] 1958-59 [illegible]
[illegible] River	Jackson	867	[illegible]	[illegible]	906.3	[illegible]
[illegible] Little	Lake [illegible] Ottawa	[illegible]	[illegible]	50.0	55.4	52.6
[illegible] Platte	Swanson	[illegible]	[illegible]	587.3	855.3	306.6
[illegible] Platte	[illegible]	[illegible]	[illegible]	[illegible]	1012.4	527.6
[illegible] Platte	Sherman	[illegible]	[illegible]	1[illegible].0	1[illegible].9	[illegible]
[illegible] Platte	Guernsey	[illegible]	[illegible]	37.5	42.7	[illegible]
[illegible] Branch	Fox Farm	[illegible]	[illegible]	[illegible]	20.8	[illegible]
[illegible] Branch	Foster	[illegible]	[illegible]	10.6	20.5	---
[illegible] Branch	Sherman Lake	[illegible]	[illegible]	---	---	---
[illegible] Creek	Bridgeport	[illegible]	[illegible]	25.1	24.3	---
[illegible] Creek	Stony Gorge	[illegible]	20.5	32.6	32.0	---
[illegible] Creek	Marsh County	[illegible]	[illegible]	---	---	---
[illegible] Creek	Cedar Glen	[illegible]	[illegible]	117.0	143.3	---
[illegible] River	Shasta	95.0	12.7	32.5	58.6	[illegible]
[illegible] Fork	Wells Forebay	[illegible]	[illegible]	74.6	143.4	[illegible]
[illegible] River	Pueblo Hill	[illegible]	[illegible]	[illegible]	232.7	[illegible]
[illegible] River	Bryson	[illegible]	[illegible]	[illegible]	[illegible]	---
[illegible] River	Pilot Knob	[illegible]	27.3	29.4	19.3	[illegible]
[illegible] River	Bull Lake	[illegible]	[illegible]	51.0	32.9	[illegible]
[illegible] River	Hogsback	22.0	[illegible]	[illegible]	32.6	---
[illegible] River	Deerfield	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] River	Arrowhead	[illegible]	---	[illegible]	0.5	---
[illegible] River	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---

[illegible] Reclamation [illegible] Water Storage
[illegible] Year Lake

VALLEY PRECIPITATION

In Percent of Normal

Basin	Sept.-Dec.	Jan.	Febr.	Mar.	Apr.
Wind River	58	88	49	202	30
Shoshone River	88	241	112	205	85
Big Horn River	72	51	48	169	25
Powder River	62	102	79	175	30
North Platte	57	63	50	193	20
Laramie River	35	42	40	136	20
Snake River	75	135	71	168	67
Green River	45	62	24	277	12

WYOMING SNOW SURVEYS, MAY 1, 1954

DRAINAGE BASIN and SNOW COURSE	State	Elev.	SNOW COVER MEASUREMENTS 1954 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1953	1952	Aver.	Year of Record
SNAKE RIVER BASIN IN WYOMING									
Lewis Lake Divide	Wyo.	7900	4/30	107	49.0	41.2	44.5	--	2
CCC Camp	Wyo.	7500	4/29	7	2.7	2.4	--	5.2	4
East Rim Divide	Wyo.	7950	5/4	28	10.7	11.3	--	10.9	8
Grover Park Divide	Wyo.	7500	4/29	8	3.1	4.6	5.5	5.0	4
Snow King Mountain	Wyo.	7600	5/2	30	10.6	7.5	9.3	10.5	3
Teton Pass No. 2	Wyo.	8500	4/28	88	40.4	39.0	41.2	40.8	5
Togwotee Pass	Wyo.	9600	4/30	80	37.0	31.7	30.8	37.0	5
UPPER YELLOWSTONE IN YELLOWSTONE PARK									
Cooke City	Mont.	7400	5/1	15	5.2	5.4	3.2	9.9	9
Lake Camp	Wyo.	7850	5/1	24	8.1	6.5	7.9	7.7	8
Lupine Creek	Wyo.	7300	4/30	25	9.5	9.0	0.0	5.4	5
MADISON RIVER IN YELLOWSTONE PARK									
Norris Basin	Wyo.	7500	4/29	23	6.3	--	--	--	0
West Yellowstone	Mont.	6700	4/29	11	2.9	5.8	6.8	3.8	20
LOWER YELLOWSTONE - WIND RIVER									
Brooks Lake	Wyo.	9200	4/26	75	32.3	28.6	29.1	25.5	18
Burroughs Creek	Wyo.	8800	4/27	42	16.7	17.0	10.4	16.3	5
Dinwoody	Wyo.	10000	4/25	49	16.9	14.9	14.5	15.2	5
Dry Creek	Wyo.	9500	4/25	28	8.6	9.4	5.9	8.3	5
DuNoir	Wyo.	8750	4/25	24	8.3	6.3	2.5	6.8	12
Geyser Creek	Wyo.	8500	4/26	20	6.5	5.8	2.3	5.2	5
Hobbs Park	Wyo.	10000	4/29	55	22.6	11.9	26.8	23.2	5
Little Warm	Wyo.	9500	4/26	63	23.3	19.0	17.8	21.7	5
Mosquito R. S.	Wyo.	9500	4/29	20	7.4	7.7	12.9	7.1	8
St. Lawrence R. S.	Wyo.	9000	4/30	16	5.4	5.1	9.3	7.6	10
Sheridan R. S.	Wyo.	7500	4/26	11	4.6	5.8	0.0	3.2	13
T Cross Ranch	Wyo.	8000	4/27	17	5.8	5.5	5.3	3.0	12
Togwotee Pass	Wyo.	9600	4/30	80	37.0	31.7	30.8	37.0	5
Trout Creek	Wyo.	8400	4/29	0	0	4.7	8.5	2.9	5

WYOMING SNOW SURVEYS, MAY 1, 1954

DRAINAGE BASIN and SNOW COURSE	State	Elev.	SNOW COVER MEASUREMENTS 1954 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1953	1952	Aver.	Year of Recor
LOWER YELLOWSTONE - POPO AGIE RIVER									
Blue Ridge	Wyo.	9500	5/1	46	12.3	9.3	20.5	12.4	14
Grannier Meadows	Wyo.	9000	5/1	47	16.0	9.7	20.1	13.7	17
Hobbs Park	Wyo.	10000	4/29	55	22.6	11.9	26.8	23.2	5
Mosquito R. S.	Wyo.	9500	4/29	20	7.4	7.7	12.9	7.1	8
Sawmill Glade	Wyo.	8500	5/1	20	2.0	5.6	11.6	7.1	14
South Pass	Wyo.	9000	5/1	50	16.8	10.2	20.7	14.5	14
LOWER YELLOWSTONE - OWL CREEK									
Beavers Mill	Wyo.	8900	4/26	24	8.7	14.3	5.7	7.9	5
Owl Creek	Wyo.	8700	4/27	22	7.6	10.4	6.9	7.7	5
LOWER YELLOWSTONE - GREYBULL RIVER									
Timber Creek	Wyo.	8800	4/30	13	3.1	N.S.	N.S.	5.8	3
Wood River	Wyo.	8000	5/1	14	3.2	3.5	1.1	4.2	13
LOWER YELLOWSTONE - CLARK'S FORK									
Lodge Pole	Wyo.	8200	4/30	33	11.8	11.3	6.9	8.7	16
LOWER YELLOWSTONE - TONGUE RIVER									
Big Goose	Wyo.	7700	5/3	4	1.1	5.9	0.0	2.8	17
Burgess R. S.	Wyo.	7900	5/2	52	20.8	14.5	9.2	13.8	4
Dome Lake	Wyo.	8800	5/2	28	8.9	11.2	5.0	6.9	5
LOWER YELLOWSTONE - SHELL CREEK									
Dome Lake*	Wyo.	8800	5/2	28	8.9	11.2	5.0	6.9	5
Ranger Creek	Wyo.	8800	4/30	22	5.9	7.3	5.2	6.4	17

* Adjacent Basin

[illegible] SNOW SURVEY [illegible] 1, 1951

[illegible] SNOW COURSE MEASUREMENTS

[illegible] 1951

Date	Snow	Water	Depth	Content	Water	Equiv.
[illegible]	[illegible]	[illegible]	of	Snow	[illegible]	[illegible]
[illegible]	Date	Snow	Survey	(In.)	1951	1952

[illegible] YELLOWSTONE - [illegible] RIVER

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] Lake	[illegible]	9500	S/1	16	12.3	[illegible]
[illegible]	[illegible]	9000	S/1	17	10.0	[illegible]
[illegible] Meadows	[illegible]	10000	M/29	55	22.0	[illegible]
[illegible]	[illegible]	9500	M/29	20	7.4	[illegible]
[illegible]	[illegible]	8500	S/1	20	2.0	[illegible]
[illegible]	[illegible]	9000	S/1	20	16.8	[illegible]
[illegible] Pass						

[illegible] YELLOWSTONE - [illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] 1911	[illegible]	Acre	M/26	26	8.7	[illegible]
[illegible] Creek	[illegible]	8100	M/27	22	7.4	[illegible]

[illegible] YELLOWSTONE - [illegible] RIVER

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] Creek	[illegible]	8000	M/30	12	3.1	[illegible]
[illegible]	[illegible]	8000	S/1	11	3.2	3.5

[illegible] YELLOWSTONE - CLARKS FORK

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] Pass	[illegible]	8500	M/30	23	11.0	11.3

[illegible] YELLOWSTONE - [illegible] RIVER

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] House	[illegible]	7700	S/3	6	1.1	5.9
[illegible]	[illegible]	7900	S/3	42	24.8	11.5
[illegible]	[illegible]	8800	S/3	28	8.3	11.2

[illegible] YELLOWSTONE - [illegible] CREEK

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	8400	[illegible]	24	[illegible]	11.2
[illegible]	[illegible]	8000	[illegible]	[illegible]	[illegible]	[illegible]

WYOMING SNOW SURVEYS, MAY 1, 1954

DRAINAGE BASIN and SNOW COURSE	State	Elev.	SNOW COVER MEASUREMENTS 1954 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1953	1952	Aver.	Year of Recor
LOWER YELLOWSTONE - NOWOOD CREEK									
Muddy Pass	Wyo.	9700	4/29	31	7.8	10.0	7.1	8.5	4
Ranger Creek*	Wyo.	8800	4/30	22	5.9	7.3	5.2	6.4	17
Tensleep	Wyo.	8300	5/3	13	3.6	5.8	3.8	4.5	18
LOWER YELLOWSTONE - CLEAR CREEK ON THE POWDER RIVER									
Soldier Park	Wyo.	8700	5/3	13	3.6	3.8	3.2	4.4	3
Sour Dough	Wyo.	8500	4/29	27	5.5	6.7	2.2	5.1	17
LOWER YELLOWSTONE - CRAZY WOMAN CREEK ON THE POWDER RIVER									
Muddy Pass	Wyo.	9700	4/29	31	7.8	10.0	7.1	8.5	4
North Powder	Wyo.	8500	5/3	12	2.0	3.0	5.2	4.1	2
Sour Dough	Wyo.	8500	4/29	27	5.5	6.7	2.2	5.1	17
NORTH PLATTE ABOVE SEMINOE RESERVOIR									
Albany*	Wyo.	9400	5/2	10	2.0	10.4	15.6	13.2	5
Bottle Creek**	Wyo.	8700	4/28	17	7.0	9.9	21.1	9.7	18
Cameron Pass	Colo.	10300	4/29	45	17.5	21.8	29.2	24.1	18
Columbine Lodge	Colo.	9300	5/3	20	8.7	25.9	30.5	20.8	18
Fox Park*	Wyo.	9200	4/30	0	0.0	1.8	6.4	7.3	18
North Barrett Creek	Wyo.	9400	4/26	42	14.9	13.7	25.7	21.5	18
North Gate	Colo.	8500	4/30	0	0	1.8	5.4	3.2	4
North French Creek	Wyo.	10200	4/26	67	26.5	26.3	35.5	32.9	16
Old Battle	Wyo.	9800	4/28	59	24.2	27.2	50.0	33.9	18
Park View	Colo.	9200	4/30	3	0.8	6.6	11.4	7.3	18
Ryan Park	Wyo.	8400	4/25	11	3.2	3.9	14.0	7.4	18
Spring Creek**	Wyo.	8700	4/26	21	8.2	12.2	22.5	16.8	5
Webber Spring**	Wyo.	9200	4/28	23	9.0	13.7	27.9	17.3	18
Willow Creek Pass*	Colo.	9500	4/30	11	2.7	8.3	20.6	13.2	16

* Adjacent Basin
** Geological Survey Elevation

Station	Date	Time	Flow (cfs)	Sediment (lb.)	Concentration (ppm)	Water content (lb.)	1953	1952	Avg.
LOWER YELLOWSTONE - [illegible]									
Buffalo Park	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	31	7.8	10.0	7.1
Horse Creek	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	22	5.0	7.3	5.2
Terry	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	13	3.4	5.4	3.8
LOWER YELLOWSTONE - [illegible] THE [illegible] RIVER									
Solfatar Park	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	13	3.6	3.8	3.2
Sour Dough	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	27	5.5	6.7	5.2
UPPER YELLOWSTONE - GARDEN CREEK ON THE POWDER RIVER									
Rocky Pass	[illegible]	9700	1/39	[illegible]	[illegible]	31	7.8	10.0	7.1
North Powder	[illegible]	8500	5/3	[illegible]	[illegible]	22	2.0	3.0	5.2
Sour Dough	[illegible]	8500	1/29	[illegible]	[illegible]	27	5.5	6.7	2.2
NORTH FORK ABOVE BIGHORN RESERVOIR									
Alkaline	[illegible]	6500	5/2	[illegible]	[illegible]	10	2.0	10.4	25.0
Middle Crossing	[illegible]	6700	1/28	[illegible]	[illegible]	17	7.0	9.8	21.1
Cameron Pass	Colo.	10500	1/29	[illegible]	[illegible]	45	17.5	21.8	29.2
Cliffside Lodge	Colo.	9300	5/3	[illegible]	[illegible]	20	8.7	25.8	30.5
Doc Parks	[illegible]	9500	1/30	[illegible]	[illegible]	0	0.0	1.8	6.4
Lake Creek	[illegible]	9500	1/26	[illegible]	[illegible]	42	24.9	13.7	25.7
Lake Creek	Colo.	8500	1/20	[illegible]	[illegible]	0	[illegible]	1.6	5.4
Lake Creek	Colo.	10200	1/26	[illegible]	[illegible]	67	26.4	26.3	35.5
North French Creek	[illegible]	9500	1/22	[illegible]	[illegible]	59	24.5	27.9	50.5
Big Beetle	[illegible]	9200	1/23	[illegible]	[illegible]	3	0.6	6.6	11.4
Park View	Colo.	8400	1/25	[illegible]	[illegible]	11	3.2	3.9	14.0
Lake Park	[illegible]	8700	1/26	[illegible]	[illegible]	21	5.0	12.2	22.5
Spring Creek	[illegible]	9500	1/23	[illegible]	[illegible]	23	9.0	14.7	27.2
Cooper Spring	[illegible]	9500	1/23	[illegible]	[illegible]	11	2.7	8.3	20.[illegible]
Willow Creek Pass	Colo.	9500	1/30	[illegible]	[illegible]	11	2.7	8.3	20.[illegible]

* Discharge Data
** Geological Survey Discharge

WYOMING SNOW SURVEYS, MAY 1, 1954

DRAINAGE BASIN and SNOW COURSE	State	Elev.	SNOW COVER MEASUREMENTS 1954 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1953	1952	Aver.	Year of Recor
NORTH PLATTE - SWEETWATER RIVER									
Grannier Meadows	Wyo.	8800	5/1	47	16.0	9.7	20.1	13.7	17
Larson Creek	Wyo.	9000	5/2	0	0.0	0.0	10.0	10.2	4
South Pass	Wyo.	9040	5/1	50	16.8	10.2	20.7	14.4	14
LARAMIE RIVER									
Albany	Wyo.	9400	5/2	10	2.0	10.4	15.6	13.2	5
Brooklyn Lake	Wyo.	10200	4/30	44	18.0	27.0	33.6	25.9	18
Deadman Hill	Colo.	10200	4/30	36	11.2	12.8	19.9	17.1	15
Fox Park	Wyo.	9200	4/30	0	0.0	1.8	6.4	7.3	18
Hairpin Turn	Wyo.	9500	4/30	20	6.5	11.7	16.4	11.6	18
Libby Lodge	Wyo.	8700	4/30	6	1.5	8.5	13.4	6.3	18
McIntyre	Colo.	9100	---	17	4.4	N.S.	13.5	12.1	4
Pole Mountain #2*	Wyo.	8700	4/30	4	0.4	0.0	2.6	2.2	17
Roach	Colo.	9800	5/1	47	15.7	15.9	27.2	20.7	13
POLE MOUNTAIN									
Pole Mountain	Wyo.	8700	4/30	4	0.4	0.0	2.6	2.2	17
NORTH LARAMIE MOUNTAINS									
Box Elder	Wyo.	9000	4/28	4	1.4	8.3	7.4	6.5	4
UPPER COLORADO - GREEN RIVER									
Big Park	Wyo.	8700	4/27	50	19.4	16.7	28.9	22.8	2
Dutch Joe	Wyo.	8700	5/2	3	0.9	0.6	2.6	3.9	18
East Rim Divide	Wyo.	7950	5/4	28	10.7	11.3	N.S.	10.9	8
Kendall R. S.	Wyo.	7900	5/2	7	2.2	6.8	6.2	6.2	18
Loomis Park	Wyo.	8500	5/1	40	17.3	15.1	12.3	11.1	18
Mulligan Park	Wyo.	8900	---	27	8.5	6.5	6.6	6.9	18
Piney-LaBarge	Wyo.	8820	4/26	24	7.9	14.7	22.6	14.5	18
Snyder Basin R. S.	Wyo.	8040	4/27	25	6.5	10.7	16.7	8.8	18

* Adjacent Basin

INDEX TO WYOMING SNOW COURSES

Name	Wyoming Number	Elev.	Location Sec. Lat.	Twp.	Range Long.	Record Began	Measuring Dates[a]	Measured By[b]
MISSOURI RIVER DRAINAGE								
YELLOWSTONE								
Canyon	10E3	7750	44°44'		110°30'	1938	1,2,3,4,5	4
Lake Camp	10E4	7850	44°34'		110°24'	1937	1,2,3,4,5	4
Lodgepole	9E1	8200	32	56N	106W	1940	4,5	1
Lupine Creek	10E1	7300	44°54'		110°37'	1938	1,2,3,4,5	2
WIND RIVER								
Brooks Lake #3	10F2	9200	23	44N	110W	1939	2,3,4,5	4
Burroughs Creek	9F6	8800	15	43N	107W	1948	2,3,4,5	4
Dinwoodie	9F10	10000	9	38N	105W	1948	2,3,4,5	4
Dry Creek	9F9	9500	34	4N	105W	1948	2,3,4,5	4
DuNoir	9F2	8750	27	42N	108W	1940	2,3,4,5	4
Geyser Creek	9F3	8500	12	41N	108W	1948	2,3,4,5	4
Little Warm	9F4	9500	24	41N	108W	1948	2,3,4,5	4
Sheridan R.S.	9F1	7500	3	42N	109W	1939	2,3,4,5	1
T-Cross Ranch	9F5	8000	1	43N	107W	1940	2,3,4,5	4
Togwotee Pass	10F1	9600	29	44N	110W	1936	2,3,4	5
POPO AGIE RIVER								
Blue Ridge	8G2	9500	23	31N	101W	1939	2,3,4,5	1
Hobbs Park	9G2	10000	22	2S	3W	1948	2,3,4,5	4
Mosquito Park R.S.	9G3	9500	23	2S	3W	1940	2,3,4,5	4
Sawmill Glade	8G1	8500	3	31N	101W	1939	2,3,4,5	1
South Pass	8G3	9000	13	30N	101W	1939	2,3,4,5	1
St. Lawrence R.S.	9F11	9000	26	1N	4W	1940	2,3,4,5	4
Trout Creek	9G1	8400	5	2S	2W	1948	2,3,4,5	4
BIG HORN RIVER								
Beavers Mill	9F8	8900	6	43N	102W	1948	2,3,4,5	4
Owl Creek	8F1	8700	36	43N	101W	1948	2,3,4,5	4
Tensleep R.S.	7E3	8300	30	49N	86W	1935	4,5	1
Timber Creek	9E2	8800	25	47N	103W	1948	4,5	1
Ranger Creek	7E1	8800	32	53N	88W	1935	4,5	1
Wood River	9F7	8000	28	46N	103W	1939	2,3,4,5	1
MADISON RIVER								
Norris Basin	10E2	7500	44°44'		110°42'	1936	3,4	2,7
Thumb Divide	15	7900	44°22'		110°35'	1946	2,3,4,5	5
SHOSHONE RIVER								
Sylvan Pass	10E5	7100	12	52N	110W	1936	1,2,3,4,5	2
East Entrance	10E6	7000	17	52N	109W	1948	1,2,3,4,5	2
TONGUE RIVER								
Burgess R.S.	7E4	7900	36	56N	89W	1950	3,4,5	4
Dome Lake	7E5	8800	11	53N	87W	1950	3,4,5	4
Big Goose	7E2	7700	4	53N	86W	1935	4,5	1
POWDER RIVER								
Red Fork	7F1	7000	18	43N	85W	1936	4,5	4
Sour Dough	6E1	8500	17	49N	84W	1936	4,5	1
Soldier Park	7E6	8700	36	51N	85W	1950	3,4,5	4
Muddy Pass	7E7	9700	11	48N	85W	1950	3,4,5	4
North Powder	7E8	8500	5	47N	85W	1951	3,4,5	4
SWEETWATER								
Grannier Meadows	8G4	9000	19	30N	100W	1937	2,3,4,5	4,6
Larsen Creek	57	9000	12	30N	103W	1949	2,3,4,5	4
NORTH PLATTE								
Bottle Creek	7	8200	24	14N	85W	1936	2,3,4,5	1
Webber Spring	8	9000	27	14N	85W	1936	2,3,4,5	1
Old Battle	9	9800	29	14N	85W	1936	2,3,4,5	1
North French Creek	37	10200	27	16N	80W	1938	2,3,4,5	1
North Barrett Creek #2	38	9400	30	16N	80W	1936	2,3,4,5	1
Ryan Park #2	39	8400	34	16N	81W	1936	2,3,4,5	1
Spring Creek	67	9000	32	15N	85W	1949	2,3,4,5	4
Albany	68	9400	18	14N	78W	1949	2,3,4,5	4
LaBonte	69	8450	11	27N	74W	1949	2,3,4,5	4
Boxelder	70	9000	31	30N	75W	1950	2,3,4,5	4
Pearl	71	8700	8	12N	82W	1951	2,3,4,5	4
MISSOURI RIVER DRAINAGE (continued)								
LARAMIE RIVER								
Brooklyn Lake	3	10200	11	16N	79W	1936	2,3,4,5	1
Fox Park	11	9200	21	13N	78W	1936	2,3,4,5	1
Libby Lodge #2	35	8700	29	16N	78W	1936	2,3,4,5	1
Hairpin Turn #2	36	9500	24	16N	79W	1936	2,3,4,5	1
CROW CREEK								
Pole Mountain #2	34	8700	35	15N	72W	1936	2,3,4,5	1
COLORADO RIVER DRAINAGE								
GREEN RIVER								
Dutch Joe Ranger Sta.	23	8700	32	37N	104W	1936	4,5	1
Mulligan Park	24	8900	17	35N	108W	1936	3,4,5	1
Kendall Ranger Station	25	7900	23	38N	110W	1936	3,4,5	1
Loomie Park	26	8500	14	37N	111W	1936	3,4,5	1
Snyder Basin Ranger Sta.	27	8040	15	29N	114W	1937	4,5	1
Piney-LaBarge	28	8820	19	29N	114W	1937	4,5	1
East Rim Divide	44	7950	32	37N	111W	1936	3,4	1
COLUMBIA RIVER DRAINAGE								
SNAKE RIVER BASIN								
Above Jackson Lake								
Arizona	1	6850	3	46N	113W	1919	2,3,4,5	5
Aster Creek	2	7700	44°17'		110°37'	1919	2,3,4,5	5
Base Camp	3	6900	20	46N	113W	1947	2,3,4,5	5
Coulter Creek	5	7600	44°09'		110°33'	1919	2,3,4,5	2
Glade Creek	6	7200	44°08'		110°44'	1919	2,3,4,5	5
Huckleberry Divide	7	7300	32	48N	115W	1919	2,3,4,5	5
Lewis Lake Divide	9	7900	44°13'		110°40'	1919	2,3,4,5	5
Moran	10	6800	8&17	45N	114W	1919	2,3,4,5	5
Moran Bay	11	6800	14	45N	116W	1919	2,3,4,5	5
Snake River Station	13	6780	44°08'		110°40'	1919	2,3,4,5	5
Jackson Lake to Heise								
Afton Ranger Station	1	6200	30	32N	118W	1936	1,2,3,4,5	1
Blackrock	2	8600	4	44N	111W	1936	2,4	5
Bryan Flat	3	6250	9	38N	115W	1936	1,2,3,4,5	1
CCC Camp	4	7500	9	29N	118W	1936	1,2,3,4,5	1
Cottonwood Lake	5	7500	25	31N	118W	1936	3,4	1
Deadman Ranch	6	6534	28	35N	116W	1936	1,2,3,4,5	4
Four Mile Meadows	8	7770	35	45N	112W	1936	2,4	5
Greys Boundary	9	5800	33	37N	118W	1936	1,2,3,4,5	1
Grover Park Divide	10	7500	27	33N	118W	1936	1,2,3,4,5	1
Teton Pass #2	11	8500	24	41N	118W	1936	1,2,3,4	1
Togwotee Pass	12	9600	29	44N	110W	1936	2,3,4	5
Turpin Meadows	13	6930	14	45N	112W	1936	2,4	5
Yellowjacket	14	7675	33	42N	112W	1936	3,4,5	1
Snow King Mountain	16	7600	4	40N	117W	1949	Semi.Mo.	1
Heise to American Falls								
Bechler Ranger Station	2	6400	44°09'		111°03'	1936	1,2,3,4,5	2
Grassy Lake	8	7265	6	48N	117W	1940	1,2,3,4,5	5
BEAR RIVER								
Big Park	85	8700	7	27N	117W	1951	3,4	4
Kelly Ranger Station	86	8200	13	26N	118W	1951	3,4	4

a. Numerals 1,2,3,4 and 5 refer to January 1, February 1, March 1, April 1, and May 1.

b. Numerals refer to Agency that secures the snow survey, as follows:

1. U. S. Forest Service
2. U. S. National Park Service
3. U. S. Indian Service
4. Soil Conservation Service
5. U. S. Bureau of Reclamation
6. State Engineer of Wyoming
7. Montana Experiment Station

INDEX TO SOUTH DAKOTA SNOW COURSES

Name	South Dakota Number	Elev.	Location Sec.	Twp.	Range	Record Began	Measuring Dates[a]	Measured By:[b]
CHEYENNE RIVER								
Upper Spearfish	1	6500	21	3N	1E	1944	2,3,4	1
Upper Castle	2	6800	24	2N	1E	1944	2,3,4	1
Deerfield	3	6010	23	1N	2E	1944	2,3,4	2

a. Numerals 2,3,4 refer to February 1, March 1, and April 1 respectively.

b. Numerals refer to Agency that secures the snow survey as follows:
1. U. S. Forest Service
2. U. S. Soil Conservation Service

AGR. S. C. S. CARTOGRAPHIC DIV.
LINCOLN, NEBR. JANUARY 1954

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